

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: January 19, 1993
 Date Received: January 14, 1993
 Project: 7238, Metro Acid Tanks, PO #M27311

RESULTS FROM THE ANALYSIS OF ACID SAMPLES FOR CADMIUM, CHROMIUM, LEAD, COPPER, NICKEL AND ZINC

Results Reported as µg/g (ppm)

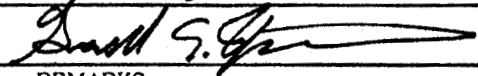
Sample ID	Cadmium	Chromium	Lead	Copper	Nickel	Zinc
M27311A	1.7	17,000	34	6,900	18,000	61
M27311B	2.8	33,000	22	3,200	27,000	150
<u>Quality Assurance</u>						
Blank	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
M27311A (Duplicate)	1.7	17,000	34	6,800	18,000	62
M27311A (Matrix Spike) % Recovery	78%	ai	75%	ai	ai	73%
M27311A (Matrix Spike Duplicate) % Recovery	78%	ai	75%	ai	ai	67%
Spike Blank % Recovery	111%	115%	111%	110%	116%	113%
Spike Level	50	50	100	50	100	50

ai The amount spiked was insufficient to give meaningful recovery data.

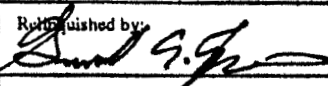
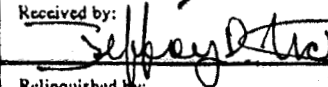
FRIEDMAN & BRUYA, INC.
3008-B 16th Avenue West
Seattle, WA 98119

SAMPLE CHAIN OF CUSTODY

Send Report To: ALASKAN COPPER WORKS Contact: Gerald Thompson
Company: 628 HANCOCK ST
Address: SEATTLE WA 98134
City, State, Zip: 628-5700 X218 Date: 1/14/93
Phone #:

SITE NO.	PROJECT NAME	PURCHASE ORDER #
7238	METRO Acid Tanks	M 27311
SAMPLERS (signature)		PROJECT LOCATION
		*
REMARKS		SAMPLE DISPOSAL INFORM.
		<input type="checkbox"/> Dispose after 30 days <input checked="" type="checkbox"/> Return Samples <input type="checkbox"/> Call for Instructions

SAMPLE #	Date/Time Sampled	Type of Sample	# of Jars	Lab Sample #	Analyses Requested
M 27311 A (small tank)	1/14/93 10:27 ^{AM}	GRAB Nitric Acid	1	36459	Cd Cr Cu Ni Pb Zn
M 27311 B (large)	1/14/93 10:27 ^{AM}	GRAB Nitric Acid	1	36460	Cd Cr Cu Ni Pb Zn

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished by: 	Gerald Thompson	Alaskan Copper	1/14/93	2:14 PM
Received by: 	Jeff Anderson	RBR	1/14/93	2:15 PM
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Andrew John Friedman
James E. Bruya, Ph.D.
(206) 285-8282

3008-B 16th Avenue West
Seattle, WA 98119
FAX: (206) 283-5044

January 19, 1993


Gerry Thompson, Project Leader
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

Dear Mr. Thompson:

Enclosed are the results from the testing of material
submitted on January 14, 1993 from Project 7238, Metro
Acid Tanks, PO #M27311.

We appreciate this opportunity to be of service to you
and hope you will call if you should have any
questions.

Sincerely,



Mark Z Perin
Chemist

MZP/dp

Enclosures